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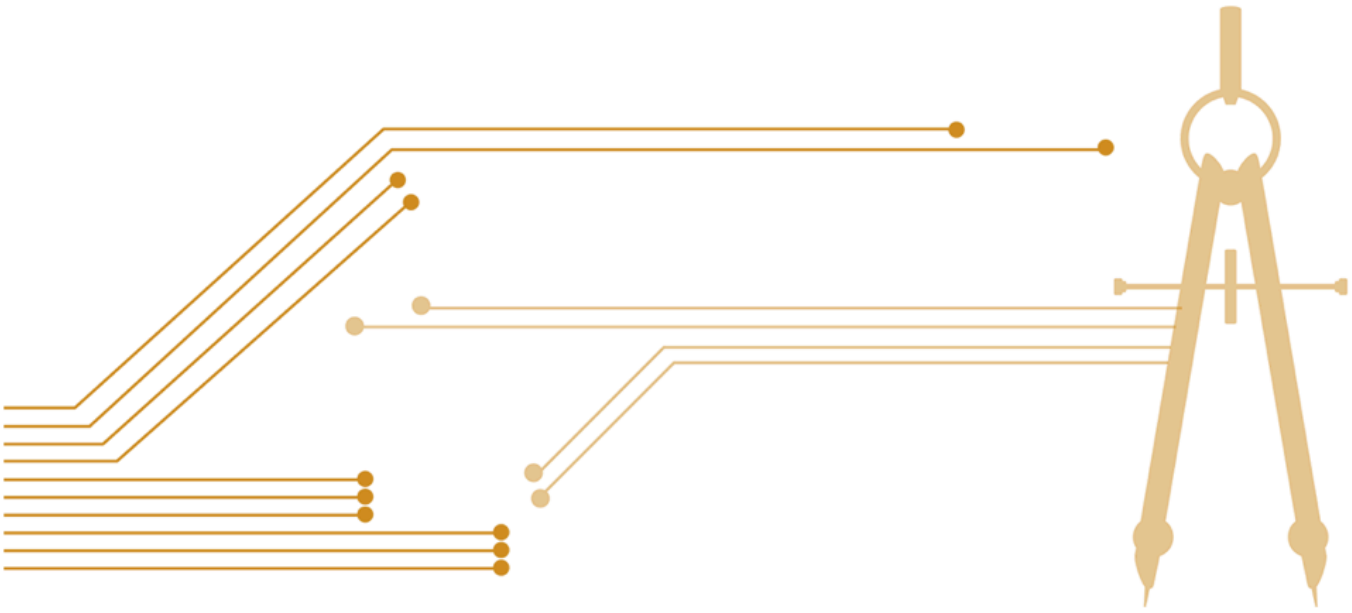

A Student-Centered Approach and Mindset-Focused Pedagogical Approach for Entrepreneurship and Leadership

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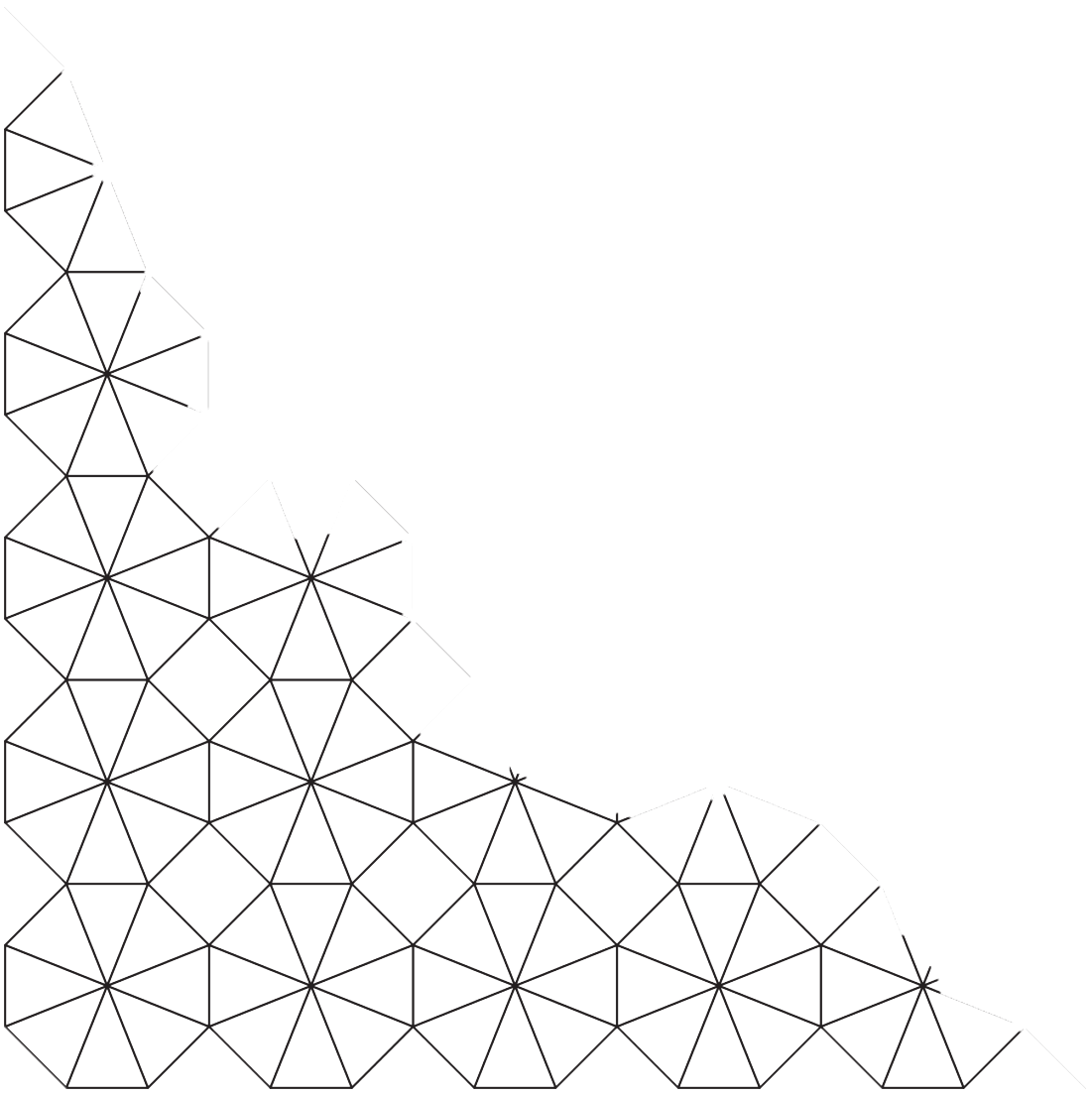
Abstract

The ease and abundance of knowledge acquisition that is unparalleled in history, renders knowledge transition and practicing of skills in education insufficient. The importance of personal reflection and identity, i.e. the individual's mindset, is increasingly important. Re-thinking educational approaches, to entrepreneurship and leadership in particular, is important since they are activities for which perfect information cannot be gathered.

This paper introduces a new pedagogical approach that we will refer to as the MIND-methodology, which incorporates aspects of the individual's mindset. The novel pedagogical approach includes four building blocks; theory practice, mindset and engagement-and-networking. The MIND-methodology is based on accepted pedagogical theories and known psychological aspects: social learning, communities of practice, and fixed and growth mindset. The novelty of the methodology lies in its clear student-centered approach and its focus on the student's mindset.

The methodology has been used in ongoing education in entrepreneurship and leadership over the course of about 10 years, and is gradually evolving. The results from applying the methodology show promising results for the main stakeholders; students and future employees. Students' ranking years after graduation is unusually high and reveal that the curricula has provided life-long learning, the mindset activities are valued the most, and salaries and salary-increases provided by their eventual employers indicate that the students possess qualities sought after in today's labor market.



Introduction

Entrepreneurship matters. In modern open economies it is more important for economic growth than it has ever been. Teaching and learning entrepreneurship is therefore of importance and schools, colleges and universities can play an important role by including entrepreneurship and innovation in their curricula 1. Some of the most crucial elements of entrepreneurship at the level of individuals are attitudes, skills and actions 13, i.e. elements that are partly not taught in traditional classes at schools, colleges and universities. Creating entrepreneurial mindsets in students also calls for the use of innovative models and contents in teaching and may involve changing the content of courses as well as the process of learning itself 9.

To educate future entrepreneurs is orthogonal to traditional teaching in respect to how teaching is conducted. A leader/instructor that wants to educate innovators should e.g. lead from the side as opposed to lead from the top, should inspire as opposed to direct, should trust and delegate instead of check and control, should treat the group members as colleagues and not as a sub-ordinate, etc 8. This is unconventional in teaching and learning situations and calls for a different mindset of the leader/instructor. It is essential for the students to be exposed to this mindset if themselves want to become leaders of future entrepreneurs, inter/intra-preneurs or innovators.

Entrepreneurship and Leadership are two communities with their own strong cultures, i.e. there is an unformulated understanding of what it is means to "be an entrepreneur or leader" or what it takes to "become and belong in the entrepreneurial or leadership communities". Traditional pedagogical approaches in teaching and learning are centered on theory and practice alone, whereas the mindset part, i.e. the "become and belong" aspect is often left out. The proposed new pedagogical methodology includes activities centered on the mindset of the students, helping the students to adapt their mindset to that of a successful entrepreneurial/leadership culture.

The paper starts with a presentation of the theories that the MIND-methodology is based on. Next, the MIND-methodology itself is presented; the general overview, its four building blocks, and the full ecosystem. A short presentation of the deployments of the MIND-methodology to an Entrepreneurship curricula as well as to a Leadership curricula are given and initial experience is described. The introduction of the MIND-methodology opens up for interesting research. Finally, the conclusions are presented.

Theories

Theory of planned behavior

The link between cognition and behavior has been explained by Theory of Planned Behavior 2. Accordingly, behavior is preceded by the intention to do so. Behavioral intentions, in turn, can be predicted by three cognitive components, namely a) attitude, i.e. the person´s positive or negative evaluation of the behavior, b) subjective norm, i.e. the perceived social pressure from significant others to perform the behavior, and c) perceived behavioral control, i.e. the subjective evaluation of whether the individual can perform the behavior as well as its subjective ease or difficulty.

In the context of entrepreneurship, most individuals will only be motivated to start their own company if they think doing so is a good thing to do, whether at least someone in their personal network supports the idea and whether the individual thinks he/she has the time, resources, etc. to do so. Starting the company is not just the act of incorporation. Entrepreneurship is more complex than that. On the behavioral level, starting a company is the end result of dozens of previous steps and actions. Ideation, resource acquisition and pitching are only few examples of behaviors that are required to actually "start a company".

Each behavior in turn comes with its own combination of attitude, subjective norm and perceived behavioral control. Previous education has taught some students to ideate and create but not to sell or commercialize their products. In fact, on the level of subjective norms, traditional classroom settings have fostered a culture of risk-aversion. Through mechanisms such as multiple-choice testing, it has produced excellent students by rewarding rote-learning and compliance but often penalizing experimentation or risk-taking – behaviors that are crucial for entrepreneurship and innovation.

Fixed and growth mindset

In addition to the theory of planned behavior, the mindset of a person is critical to understanding the behavior he/she will engage in. Mindset constitutes a certain set of attitudes and beliefs and is therefore central to behavior.

A common distinction in mindset has been made between fixed and growth mindset 5. Accordingly, people with a fixed mindset believe that skills and ability reflect inherent traits that are stable. They build their identities around their level of ability. Research has shown, however that this way of thinking exerts constraints on performance in the long-term. This is due to the fear these individuals experience when faced with challenges as they frame these situations are threatening. Due to their fear of failing or of losing they avoid taking on new challenges or entering situations where others can question their credibility. On the other hand, people with a growth mindset believe in the malleability of skills and ability. Moreover, they believe that success is the reflection of effort. For persons with a growth mindset, the reward comes from overcoming challenges and impossible situations. They feel internally rewarded for the process rather than the result. As they continuously take on new challenges they continue to grow and expand their skills and abilities 4.

Community of Practice

Theories from social sciences define the concept of Communities of Practice 10. Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. Communities of practice can add value to an organization in several different ways, e.g., development of professional skills.

Studies have shown that apprentices learn as much from peers and more advanced apprentices as they do from master craftsmen 12. Theories from social sciences also state that Knowing and Learning are acts of participation in complex social learning systems, i.e. to form and acquire knowledge, it takes one or several brains in living bodies but it also takes a complex social, cultural and historical system, which has accumulated learning over time 11. A community of practice is an example of such a learning system, and belonging to such is essential to our learning. There are different ways of belonging to a community of practice; one of them is Engagement i.e. the possibility to do things together with peers in the community, another one is Networking, i.e. to meet and spend time together with peers in the community. The way we engage and network in s community profoundly shapes our experience of who we are 11.

Mind-Methodology

The MIND-methodology includes four building blocks; Theory, Practice, Mindset and Engagement-and-Networking. It assumes that there is a basic infrastructure in place that assures that students feel safe and that they can work efficiently. The first building block, Theory, stresses the learning of theory and thereby acquiring knowledge, the second building block, Practice, highlights the importance of practicing and thereby getting skills, and the third building block, Mindset, underlines the importance of changing or confirming an individual's mindset and thereby experiencing personal growth. The fourth building block, Engagement-and Networking, is supporting the other three and is a mean for improving the students' self-efficacy, and is also enabling scale-ability of a curricula/program. The four building blocks of the MIND-methodology are depicted in Figure 1.

Building Block: Theory

By teaching and learning Theories, the students will acquire knowledge Knowledge is a familiarity, awareness or understanding of someone or something, such as facts, information, descriptions, or skills. The old Greek philosopher Plato famously defined Knowl-

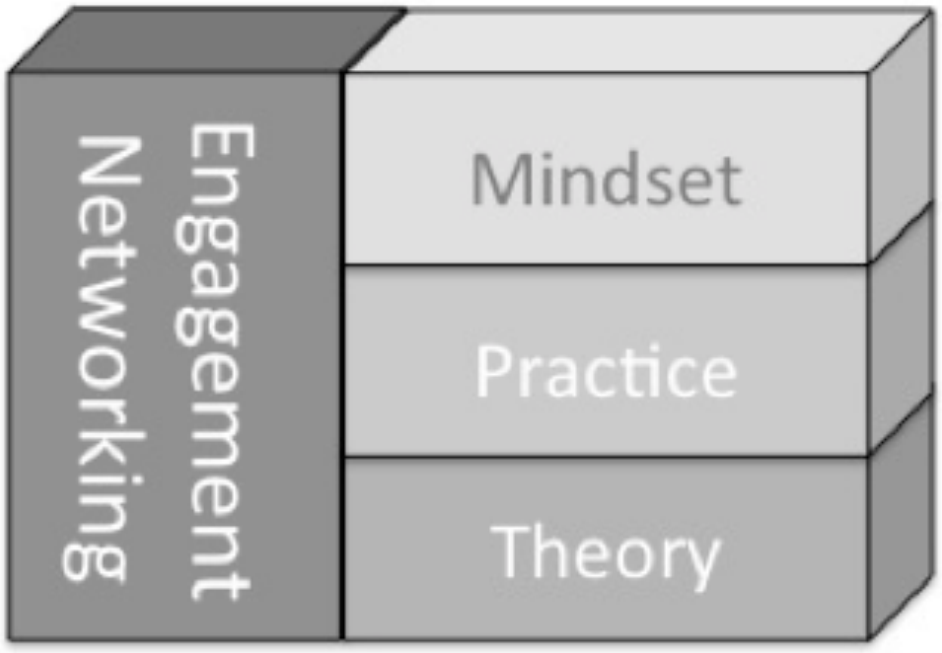


Figure 1: The Four Building Blocks of MIND-methodology

edge is a familiarity, awareness or understanding of someone or something, such as facts, information, descriptions, or skills. The old Greek philosopher Plato famously defined Knowledge as "justified true belief" 6.

Examples of knowledge in the domain of leadership could e.g. be to be aware of various project management methods. Examples of knowledge in the domain of entrepreneurship and innovation could e.g. be to know the rules of giving a pitch to venture capitalists or the steps needed for developing a prototype, etc.

Building Block: Practice

By including elements focused on practice to the students, they will acquire skills. A skill is not the knowledge itself but rather the knowing of what to do with the knowledge. It is defined as the ability and capacity acquired through deliberate, systematic, and sustained effort to smoothly and adaptively carryout complex activities or job functions involving ideas (cognitive skills), things (technical skills), and/or people (interpersonal skills) 4. In order to become successful entrepreneurs or leaders, students need to get opportunities to practice what they have learned. Alternatively, by exposing them to real-world situations, they can learn vicariously, i.e. by watching others. In addition, constructive feedback should be provided on the performance in order to allow for more skill development.

Examples of skills in the domain of entrepreneurship could e.g. be to know how to adjust a company pitch story based on the audience. Examples of skills in the domain of leadership could e.g. be to have insights in how business models can be applied when taking strategic decision at corporate levels.

Building Block: Mindset

This cognitive antecedent of behavior represents the third element of the MIND-methodology and complements elements of knowledge transmission and opportunities for practice. The mindset element underlines the importance of changing or confirming an individual's mindset and thereby experiencing personal growth.

Personal growth is a longitudinal journey for each student, a process that takes time to unfold. Personal growth implies gaining self-efficacy. Personal growth is always done on an individual basis but with support of others. Thus including personal growth in a curriculum therefore requires student-centered activities regarding their mindset, their thoughts, their beliefs and their goals. Personal growth incorporates "learning to become" and "learning to belong", two components in the social theory of learning 10. The steps in this longitudinal journey are iterative and needs elements related to both Action and Reflection. Games are an example of an Action element and Learning Journals are an example of a Reflection element. Typical entrepreneurial behavioral patterns have been studied 1,7, as well as typical leadership styles 8.

Examples for personal growth in the domain of entrepreneurship can e.g., be to understand what additional characters you need in your team in order to complement your skills. In Leadership it can be the ability to define/articulate and to understand one's own strengths and weaknesses, one's own abilities and disabilities, etc.

Building Block: Engagement and Networking

Engagement refers to the fact that the students are deeply engaged in their own learning and learning setting, by being invited, encouraged and allowed to take responsibility for their own learning. To foster engagement amongst the students participating in a curriculum, both on an individual level and among the students as a group, the learning environment requires trust, respect, and true role models. Engagement leads to "learning to belong". The belief is that the students can develop and learn from many additional activities not traditionally thought of as curricula-activities. Equally important is to provide the students with a network of peers and role-model from whom they can be influenced and learn.

Experience

The MIND-methodology has been used in ongoing education in entrepreneurship and leadership over the course of about 10 years, and is gradually evolving. It has lately been extended with related research activities.

In activities provided to the entrepreneurship-interested students at UC Berkeley, CA, USA (Saturdja Center for Entrepreneurship and Technology), the students are exposed to several mindset-learning occasions in addition to the theory and practice possibilities. The main vehicle for working with the students' mindset at UC Berkeley is focused on Action and is referred to as Games 1. Games are a means to making students aware of their current mindset regarding perspectives of importance for Entrepreneurs. The method is referred to as the Berkeley Method of Entrepreneurship (BMoE) 1, 15.

In a two-year long leadership curriculum ((Technology Management programme) the leadership-interested students at Lund University, Sweden, do not only learn about theory and practice, they also work hard with their own mindset in order to find their own strengths and weaknesses related to leadership. The main vehicle for working with the students' mindset at Lund University is focused on Reflection and is referred to as Learning Journals 2. Learning Journal is a mean that, over a longer period of time, lets the students confirm or change their mindset by writing down their individual thoughts and thereby sorting out their own beliefs. The method is referred to as Lund Learning Leadership Method (3LM) 14.

Student reports and placement reports reveal promising results linked to the inclusion of the mindset perspective. The students in the Leadership curriculum at Lund University, claim that the curriculum helps them grow both as individuals and professionals in a way they would not have done without the mindset activities. Five to ten years after graduation, the students rank the activities focused around mindset as the most valuable learning from their educational curricula/period 2.

Summary

This paper presents the MIND-methodology, a novel pedagogical approach for teaching and learning Entrepreneurship and Leadership. The novelty of the methodology lies in its clear student-centered approach and its focus on the student's mindset. It is based on accepted pedagogical theories and known psychological aspects, social learning, communities of practice, The MIND-methodology includes four building blocks; Theory, Practice, Mindset and Engagement-and-Networking, see Figure 1. The first building block, Theory, stresses the learning of theory and thereby acquiring knowledge, the second building block, Practice, highlights the importance of practicing and thereby getting skills, and the third building block, Mindset, underlines the importance of changing or confirming an individual's mindset and thereby experiencing personal growth. The fourth building block, Engagement-and-Networking, is supporting the other three and is a mean for improving the students' self-efficacy, and enabling scalability of the curricula/program. and fixed and growth mindset.

The MIND-methodology is strongly student-centered (adjusted for each individual), has an action-reflection iterative approach, and has already generated preliminary and promising results in entrepreneurial-leadership curricula. Our main hypothesis is that by applying the MIND-methodology to curricula, additional value is provided to the stakeholders (i.e. students and their future companies or employers). The introduction of the MIND-methodology for teaching and learning Entrepreneurship and Leadership also opens up for many interesting research questions.

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